

CLAIMS 53174

- 5 13. (new) A composition for the treatment of metal surfaces or for the deposition of metal or metal alloys on plastics surfaces, comprising
- b) water or another solvent suitable for dissolving, dispersing, suspending or emulsifying the polymer (component A), as component B;
- 10 c) if desired, surface-active compounds, dispersants, suspension media and/or emulsifiers as component C
- wherein the composition comprises
- 15 a) at least one polymer as component A, composed by reaction of
- aa) at least one amino-containing polymer as component Aa;
- ab) at least one aromatic compound as component Ab, being a phenol or quinone or containing a phenolic or quinonoid structural unit;
- ac) if desired, an aldehyde as component Ac.
- 20 14. (new) A composition as claimed in claim 13, for the treatment of metal surfaces comprising further to components A, B and, where appropriate, C
- d) at least one salt, acid or base based on transition metal cations, transition metal oxo anions, fluorometallates or lanthanoids as component D,
- 25 and/or
- e) at least one acid selected from the group consisting of phosphoric acid, sulfuric acid, sulfonic acids, nitric acid, hydrofluoric acid, and hydrochloric acid, as component E.
- 30 15. (new) Composition as claimed in claim 14, comprising
- f) at least one further corrosion inhibitor as component F, and/or
- g) compounds of Ce, Ni, Co, V, Fe, Zn, Zr, Ca, Mn, Mo, W, Cr and/or Bi as component G,
- 35 and/or
- h) further auxiliaries and additives as component H.

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16. (new) A composition for the treatment of metal surfaces or for the deposition of metal or metal alloys on plastics surfaces as claimed in claim 13, comprising further to components A, B and, where appropriate, C:
- 5 i) at least one metal oxide and/or metal salt as component I,
j) where appropriate, at least one complexing agent as component J.
17. (new) The composition as claimed in claim 16, comprising
- 10 k) where appropriate, at least one acid or an alkali metal salt or alkaline earth metal salt of the corresponding acid, as component K, and
l) where appropriate, further additions as component L.
18. (new) A process for the treatment of a metal surface, which comprises contacting the metal surface with a polymer (component A) composed by reaction of
- 15 aa) at least one amino-containing polymer as component Aa,
ab) at least one aromatic compound as component Ab, being a phenol or quinone or containing a phenolic or quinonoid structural unit, and
ac) if desired, an aldehyde as component Ac.
- 20 19. (new) A process for the treatment of a metal surface, which comprises contacting the metal surface with a composition as claimed in claim 13.
20. (new) A process as claimed in claim 17, comprising the steps of:
- 25 a) where appropriate, cleaning the metal surface to remove oils, fats, and dirt,
b) where appropriate, washing with water,
c) where appropriate, pickling to remove rust or other oxides, in the presence or absence of the polymer (component A),
d) where appropriate, washing with water,
e) treatment of the metal surface in the presence of the polymer (component A).
- 30 21. (new) A process as claimed in claim 20, additionally comprising the steps of
f) where appropriate, washing with water,
g) where appropriate, aftertreatment, in the presence or absence of the polymer (component A).
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22. (new) A composition as claimed in claim 13, wherein the amino-containing polymer is selected from the group consisting of polyethyleneimine, polyvinylamine, poly(vinylformamid-co-vinylamine), polylysine, polyaminostyrene, amino-containing derivatives of polycarboxylates, reaction products of polyamines with carboxylic acids and/or sulfonic acids, and carboxymethylation products of polyamines.